Environmental Protection Branch Annual Report

2001-2002

EBP 182

Saskatchewan Environment
Environmental Protection Branch

SASKATCHEWAN ENVIRONMENT'S CORE GOALS AND OBJECTIVES

Core Goal	Objectives
A Clean and Healthy Environment	1. Clean Water a. Safe municipal drinking water b. Good quality surface and ground water 2. Clean Air 3. Clean Land 4. Minimize risk and adverse impact of wildland fires on people, property and natural resources
Protect Ecosystem Health and Natural Abundance of Renewable Resources	5. Species and habitat at risk are protected 6. Biodiversity and ecosystems are sustained
Provide Fair Opportunity for Sustainable Use, Development and Enjoyment of Natural Renewable Resources	7. Equitable allocation of natural renewable resources 8. Accessible recreational and education opportunities on provincial park and Crown resource lands 9. Increase economic benefits based on sustainable use of natural renewable resources 10. First Nations and Métis rights and their interests in the use of natural resources are met through co-operative means

The above table identifies the strategic core goals and objectives, which Saskatchewan Environment (SE) has proposed for the four-year period ending in 2004. The Saskatchewan Environment Annual Report 2001-2002 outlines the activities conducted by the department to achieve these goals.

The following report provides additional detail on the key actions carried out by the Environmental Protection Branch in support of the department's Objectives 1, 2 and 3 during the April 1, 2001 to March 31, 2002 fiscal year.

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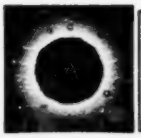


Our Mandate: *The protection and enhancement of the environment in a manner that promotes the physical, economic and social well-being of the people of Saskatchewan today and in the future.*

BRANCH ORGANIZATION

Client Services section identifies, reviews and evaluates client/stakeholder needs; coordinates, establishes and maintains client relationships; coordinates program delivery; supports regional delivery of program/initiative; delivers programs with province-wide focus; and delivers training for new initiatives.

Ecological Monitoring section designs/determines practical indicators to evaluate ecosystem health; designs monitoring programs for evaluating ecosystem/component quality/health on a provincial scale; receives, compiles, assesses and interprets environmental data collected to describe ecological health and understand impacts of activities on ecosystem components; and assists in the evaluation of criteria, guidelines, models, programs and activities designed to conserve resources, preserve the quality of environment or reduce risk to environment or health.

Planning section coordinates branch work planning with corporate level planning initiatives; leads public involvement processes for planning initiatives; assesses the priority of issues; determines the Branch's strategic response to emerging and existing provincial environmental protection issues; coordinates and develops Branch policy, programs and activities necessary to resolve environmental protection issues; and leads evaluation of Branch initiatives to determine overall effectiveness in relation to objectives and priorities established.

Standards section develops and modifies performance measures, standards, guidelines, criteria, objectives, codes of practice, legislation and regulations stemming from Branch initiatives and departmental and stakeholder needs. The section translates ecological health assessment and other information into environmental quality and designs measures of human performance as it relates to environmental quality. The section represents SE on national and inter-provincial initiatives such as CCME and Canada-wide Standards as they relate and impact Saskatchewan.

Data Management Unit is involved in all aspects of environmental data computerization. They manage and maintain a computerized water quality database (ESQUADAT) for the province. The system provides for storage, analysis and ongoing updates of data including: drinking water, surface and groundwater, and industrial and municipal effluent quality. Data management services are provided to department, other government agencies, industrial and municipal clients and the public.

Branch Purpose: To balance people's interaction with the environment to protect human health and ecosystem integrity.

BRANCH PRINCIPLES

Risk Management: requirements are applied in recognition of actual risks to ecosystems; deployment of resources to activities that pose the greatest risk to the environment

Pollution Prevention: efforts aimed at prevention of pollution rather than *cleanup* and *remediation;* includes life cycle management and stewardship approaches

Minimal Intervention: early involvement in mandated initiatives to gain broad success without the need for detailed regulation of large numbers of facilities; and being less intrusive and sharing responsibility with others for protecting the environment

Ecosystem Focus: considering the needs for ecosystem protection in all activities; ecosystem protection decisions are based on sound science

Partnership Approach: working with clients and partners to reduce impacts from smaller, dispersed activities which collectively pose a significant threat to the environment; including stakeholders in setting goals and priorities

Empowering Regulations: regulations which empower action rather than specifying prescriptive step by step approaches for achieving results; performance-based standards; seeking alternatives to regulation, such as guidelines and codes of practice

Devolution: aligning responsibility for environmental protection with the accountability for direct action

Regional Program Delivery: delivery of environmental protection programs directly to clients occurs in the eco-regions; policy and program development occurs in Regina

This Year in Review

Environmental Protection Branch initiatives, accomplishments and activities are organized in this report to correspond to the department's corporate priorities for 2001-2002. Branch activities are focused on the specific corporate goal to ensure A Clean and Health Environment.

The Annual Report of Saskatchewan Environment 2001-2002 identified SE's Core Goals, Objectives and specific Key Actions in support of the objectives stemming from the Corporate Strategic Plan.

The following sections provide greater detail of the Key Actions and other activities carried out by the Branch in support of Core Goal 1 (A Clean and Healthy Environment) and Objectives 1, 2 and 3 (Clean Water, Clean Air and Clean Land).

CLEAN WATER

SAFE MUNICIPAL DRINKING WATER

- In early May, 2001 Premier Calvert announced that an Inquiry would be held into the cryptosporidiosis outbreak at North Battleford, Saskatchewan. Staff from Environmental Protection Branch were assigned to support the Parkland EcoRegion in responding to the outbreak. The outbreak and Inquiry consumed considerable Branch resources during the fiscal year. Many Branch staff worked long hours to support the effort to insure that residents of North Battleford had safe water to drink, and staff also worked countless hours to prepare and compile information for the inquiry process itself and to participate in the inquiry. The inquiry began in the fall of 2001 and concluded in early winter 2002. Over 7000 documents became a formal part of the Inquiry. Several parties had formal standing at the Inquiry. Each was represented by a lawyer. Justice Robert Laing made 28 recommendations in the final report dated March 28, 2002. The Inquiry will have lasting benefits in improving operations at the City of North Battleford, and within government regulatory processes as well.

- The Federal-Provincial-Territorial Committee on the Environment and Occupational Health and its Drinking Water Committee (DWC): A Saskatchewan representative is currently chairing the DWC. During the past year, the DWC drafted new or revised guidelines for algal toxins, turbidity, and protozoa;

conducted a national survey on drinking water regulations and guidelines; and revised boil water advisory guidelines.

◊ Protocols: There were no changes to the interim bacteriological follow-up protocol during 2001/2002. In recognition of the importance of high quality drinking water for Saskatchewan residents, funding was increased to improve SE's drinking water management activities.

◊ Maintain Listings of Precautionary Drinking Water Advisories (PDWA) and Emergency Boil Water Orders (EBWO): The Branch continues to track PDWAs and EBWOs for the province of Saskatchewan. Since the Branch started tracking in June of 2000, the process continues to be refined and improved upon. This fiscal year, SE began posting this information to its website for easy access by the general public. This web site is updated within 24 hours of a PDWA or EBWO being issued.

To March 31, 2002, there were 302 certified operators and another 39 applications pending. SIAST and a private contractor offered training opportunities and operators wrote certification examinations at sessions organized and advertised by the Saskatchewan Water and Wastewater Association.

◊ Canadian Council of Ministers of the Environment's (CCME) Water Coordinating Committee (WCC): CCME reaffirmed its commitment to clean, safe and secure water for all, are taking comprehensive action to protect the quality of drinking water from the source to the tap, and emphasized the importance of strong drinking water standards based on the Guidelines for Canadian Drinking Water Quality. A series of collaborative actions were initiated amongst CCME jurisdictions through the WCC. The Committee produced a discussion paper entitled "From Source to Tap - The Multi-barrier approach to safe drinking water".

◊ Review and revisions are underway on the Water Works Design Guidelines.

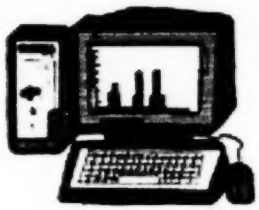
◊ Water Management Framework (WMF): EPB had direct or indirect impacts on the WMF by funding and providing support to the mandatory certification of water and wastewater works operators; and contributing to research by participating in various federal/provincial surveys and workshops.

93 per cent of Saskatchewan's municipal drinking water systems met minimum treatment requirements.

GOOD QUALITY SURFACE AND GROUND WATER

◊ Water Management Framework action item #1 to develop indicators and monitor the health of drinking water sources and aquatic ecosystems was implemented. This action is a key component of an ecological monitoring program to determine the overall health of aquatic ecosystems, including sources of drinking water. Indicators such as the Water Quality Index and the Trophic Index have been developed to monitor the health of aquatic ecosystems. The data collected will help guide future water resource management and also identify existing significant problems as well as future threats. Ongoing compliance monitoring by municipalities will continue to be required.

◊ The Water Quality Index for Saskatchewan was developed through a review of potential indices and the Canadian Water Quality Index was selected. Work will now focus on parameter and objective selection/rationalization to customize the Index for Saskatchewan's needs. Data from several river basins has been run through the Index. The Information Management Branch has completed an interactive Internet-accessible prototype using Qu'Appelle River data.



The Department's water quality database contains over 499,000 sample results, more than 3.5 million measurements and 9,292 stations. In the 2001/02 fiscal year 28,948 samples were analyzed, with 150,696 measurements representing 1,738 sampling locations and 212 unique variables, which are all stored on the department's water quality database ESQUADAT.

◊ Satellite imagery data were used to identify shallow lakes in the West Boreal and Shield Eco-Regions that are prone to damage by acid rain. The department identified 10 lakes to be considered for monitoring and this list was forwarded to the Tar Sands Working Group for approval. Due to the high soil sensitivity of these EcoRegions and the trans-boundary activities adjacent to these areas, sites have been set up in various areas to collect and analyze rainwater for pH and major ions. Monitoring has been ongoing in the West Boreal and Shield EcoRegions for acid deposition in natural lakes. This fiscal year data have been collected and recorded electronically.

◊ The Branch continued work to ensure that our databases could be used in a provincial water data management system. The GPS verification/changes on Esquadat stations is an ongoing project. Whenever samples have been collected in the field by EcoRegions or Ecological Monitoring staff, GPS readings are taken and submitted to the Data Management Unit. The verification/changes are then

made to the Esquadat Station Definition Table. The verification of the Esquadat Methodologies has been ongoing throughout the year. The equivalent Federal agency has been contacted to obtain new methods for update into the Esquadat Method Definition Table. SE is planning to make Esquadat SE sampled surface water data available through the WEB in 2002.

◊ Fact sheets were prepared on techniques for monitoring of surface water, groundwater and sediments for use by the EcoRegions to assist in establishment of ecosystem monitoring programs.

◊ Saskatchewan is in the midst of a major expansion in the hog industry, and there are concerns about negative environmental impacts, including the possible deterioration of surface water quality. SE and Saskatchewan Agriculture and Food, are conducting a monitoring program in the vicinity of several large hog operations to obtain baseline water quality data during spring runoff.

◊ The Codette Reservoir was formed by the construction of the Francois-Finlay Dam on the Saskatchewan River near Nipawin in 1985. Since then, annual water quality monitoring has been carried out at a number of locations on the reservoir.

◊ Research into the production of algal toxins in lakes and rivers by blue-green algae continues with efforts to derive a correlation between water chemistry and algae blooms. Further testing of portable filtration apparatus was conducted through this fiscal year. There were no labs found that could provide reliable quantitative mircosystin LR (toxic) data.

◊ Preliminary work on the trend analysis of water quality data from network monitoring stations has shown significant person hours are required to develop and complete the analysis. Work will be conducted on this initiative in the winter months.

◊ The Branch represented Saskatchewan as a member of the organization committee for the CCME Workshop "Linking Water Science to Policy: Effects of Agricultural Activities on Water Quality" which was held in Winter 2002. The workshop was attended by representatives from agricultural industries, provincial departments of Environment, Agriculture and Agri-Food Canada, as well as university professors and the general public. A final report has been published and is available on the CCME Website.

◊ The Branch assisted the Grasslands EcoRegion in the approval process for a new sewage lagoon in the Pilot Butte area. Assistance included the review of a consultant's report supplying information on the Condie Aquifer and attending meetings and open houses.

- ◊ CCME - Water Quality Guidelines Task Group (WQGTG): Water and Sediment quality guidelines for Nonyl-phenol, nitrate ion in surface water and inorganic fluoride in surface water were completed in this fiscal year. The WQGTG published the Water Quality Index on its web site and a draft document was produced by CCME on site specific guidance for the application of CCME water quality guidelines.

- ◊ Site Specific Water Quality Guidelines and PPWB Water Quality Objectives: Alberta side objectives are now in place and being used. There has been no progress since last year on the objectives for the Manitoba side.

CLEAN AIR

◊ Provincial air contaminant emission inventory: industrial emissions are collected every five years and preliminary planning was conducted in preparation for the Y2K emissions inventory. The Residual Discharge Information System database was updated from the emission information that was provided by the EcoRegional offices and forwarded to the Pollution Data Branch of Environment Canada.

◊ The Branch required an air quality data management system for the province. Ecological Monitoring purchased an Air Monitoring polling/database called Central Data Management System(EMS) to poll and maintain Saskatchewan air quality data. It is now in production and supplying information to the department. The Emissions and Projections Working Group (EPWG) now collects all the data directly from the Industries. Saskatchewan Environment is able to request the data from EPWG if information is required.

Emissions and Projections Working Group (EPWG) is a technical working group made up of emissions inventory, forecasting and back-casting experts and practitioners within all provincial and territorial energy and environment ministries, and the federal government. The EPWG coordinates federal/provincial work in producing Canada's emissions inventories and forecasts, specifically for Criteria Air Contaminants (CAC) and Greenhouse Gases (GHG).

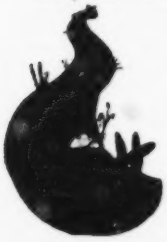
◊ The Branch assisted the EcoRegions in the compliance monitoring of a hydrogen disulphide monitoring site set up approximately 2 kilometers from an intensive hog operation near the town of Kipling.

◊ Provided support and actively participated in SE's Climate Change Intergovernmental Stakeholders meetings.

◊ Provincial acid emissions inventory: As part of the provincial reporting and communications obligations of the Canada-wide Acid Rain Strategy for Post-2000, SO_2 and NOx industrial air emissions were collected via the regional offices and forwarded to the Acid Rain Working Group.

As part of the regulations, a person who successfully completes a prescribed course in the proper recovery, recycling and handling procedures for sealed systems containing an ozone-depleting substance, are certified and are allowed to purchase ozone-depleting substances. In this fiscal year, there were 395 successful participants for a total of 7,068 to date.

◊ As part of the Saskatchewan/North Dakota transboundary air quality monitoring network stations, the Branch performed an audit of the Estevan and Boundary Dam air monitoring stations operated by SaskPower, as well as the Short Creek and Lignite air stations in North Dakota operated by the North Dakota Department of Health.



The Transboundary Monitoring Team, consisting of members from Saskatchewan Environment, SaskPower, North Dakota Department of Health, Environment Canada, and the US EPA, is working to characterize transboundary air pollution in the Estevan-Burk County Region.

◊ Canada Wide Standards (CWS) for Mercury were endorsed for Fluorescent tubes and Dental Amalgam. Implementation plans were prepared for waste incineration sectors, base metal smelting and fluorescent tubes. SE achieved considerable progress in work activities associated with the development of CWS for the coal-fired electric power generation sector.

◊ Burning at Landfills: The Branch worked with SE's Operations Division to deal with the landfill burning issue and general landfill management. The landfill burning compliance policy included training, enforcement, standardized operating conditions, a communications strategy and site sensitivity analysis for each landfill. The purpose was to provide our staff with the information on landfill operation and maintenance issues to convey to our clients. There has been increased enforcement presence at landfills.

◊ Agricultural Crop Residual Burning: Participated in the interdepartmental committee examining the impact of crop residual burning. This was the program's third year and it was expanded to include the entire province.

◊ New Thermal EPG Air Quality Guidelines: The Branch participated in the review and development of CEPA "Guidelines for the Electric Power Generation - New Sources." This included an extensive review and consultation with SaskPower.

- The department committed to implementing tasks put forward in the National Action Plan for Ozone-depleting Substances Control. The plan included implementing recovery, recycling and emission control measures for hydrofluorocarbons (HFC's); mandating the use of refillable containers; prohibiting the recharging of mobile air conditioning systems with chlorofluorocarbons (CFC's); encouraging development and implementation of an extended producer responsibility program; and, developing an awareness program to inform stakeholders of phase-out strategy objectives and timelines.

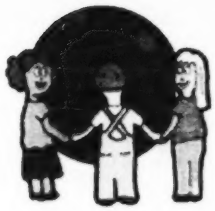
CLEAN LAND

- Centenary Fund
  - Municipal Infrastructure Core Area: In the second year of the program, the Branch selected candidates and monitored program progress (The 2001/02 Centenary Fund Program provided funding to five regional waste management authorities: the Red Coat Waste Resource Authority received $116,250; the North Central Saskatchewan Waste Management Corporation Inc. received $158,000; the Saskatoon Waste Management Authority received $83,250; The West Yellowhead Waste Resource Authority received $158,750 and The Central Regional Landfill received $58,000).
  - Contaminated Sites: The Shragge Steel remediation project was completed in this fiscal year. In 2001-2002 the Woodland Campus remediation project focused on cleaning up creosote contamination from the former Domtar wood treatment plant in Prince Albert. The department also completed a detailed investigation into the former Northern Petroleum Corporation refinery in Kamsack. As a result, International Comfort Products agreed to join the Town of Kamsack and the province in an agreement to fund restoration of the former refinery site.
  - The Orphaned Fuel Storage and Sales Clean Up Program: Under the Centenary Fund, this program has provided communities financial assistance to clean up orphaned fuel storage and sales facilities. SE partnered with Saskatchewan Urban Municipalities Association (SUMA) and Saskatchewan Association of Rural Municipalities (SARM) to deliver a four year program designed to clean up orphaned service stations. Local governments were canvassed and identified 400 abandoned fuel storage tanks across the province, 371 sites have been assessed, and 32 sites have been cleaned up. Local governments have provided "in-kind" contributions in the way of project management, providing locations to land farm contaminated soil, and providing backfill material which enables the government to clean up a greater number of orphaned service stations. SE, SUMA and SARM recently have negotiated an agreement with the Canadian Petroleum Producers and Federated Co-operatives Ltd. that will see the oil industry fund a portion of all remaining orphaned service station clean ups. The oil industry's contribution could be as much as $500,000 over the next two years.

- The Branch supported the development of an agreement for the cleanup of the abandoned Gunnar and Lorado uranium mining sites. Joint funding options were pursued with the Federal government.

- The Institutional Control of northern mining sites was completed as a draft discussion paper for eventual policy establishment.

◊ Developed policy and strategic plan to reduce overlap and duplication with the Canadian Nuclear Safety Commission regarding regulated uranium mining facilities in Saskatchewan (working group formed to jointly develop strategy for transition; prepared a draft agreement for discussion. Work continued to identify opportunities and training needed for staff).



Saskatchewan Petroleum Industry Government Environmental Committee (SPIGEC) of which SE, other government departments and industry stakeholders are a part, continued to meet to provide the latest information regarding department activities, standards and codes of practice.

◊ The Branch, in conjunction with stakeholders, presented the Paper Product Stewardship Options Report, which identified six strategic management options to reduce the amount of paper entering Saskatchewan's landfills (national program, industry run program, provincial program, third party program, municipal program, and enhancement of the present system). The purpose of the report was to provide a menu of potential strategies for SE consideration. The report also examined other jurisdictions and the present system in Saskatchewan. SE also examined other proposals related to paper.

◊ The Branch is in the process of evaluating regulatory integrated databases for soil-related information and technical data. The Alberta Environmental Management System has been reviewed as a possible database for the regulatory requirement to the chemical data stored on Esquadat.

◊ Pesticide Container Site Closure: SE conducted soil testing at a number of sites to confirm the draft guidelines were effective in dealing with the closure of the sites.

The Crop Protection Institute's (CropLife) Saskatchewan Pesticide Return program was launched in 1999 to collect unwanted farm pesticide chemicals. About 49,700 litres of liquids and 25,000 kilograms of solids were collected for disposal in an environmentally responsible manner. Approximately 2.9 million pesticide containers were collected.

◊ Municipal Landfill Decommissioning and Reclamation Guidelines: A survey was conducted to ensure the guidelines were effective in assisting communities in the closure of their landfills.

◊ A project was initiated to develop and implement a soil monitoring and management framework for Saskatchewan. The primary objective of this project

is to assess the quality of soil resources and manage them to sustain and improve their quality. A draft report was prepared this fiscal and is being reviewed.

SARCAN was created in 1988 when Saskatchewan Environment and Resource Management contracted the Saskatchewan Association of Rehabilitation Centres (SARC) to operate a province wide depot system to collect and recycle beverage containers. During the 2001/2002 fiscal year over 217 million containers eligible under the program were returned. This figure constitutes an 83% return rate.

◊ Five new solid waste publications targeted at municipalities and the general public were developed for the operation and management of waste disposal grounds. These include: Designated areas at waste disposal grounds, Rat Control, Cover and Compaction methodologies at waste disposal grounds, The development of New Waste Disposal Grounds and Construction and Demolition handling. These publications are available on the department's web site.

The Saskatchewan Association for Resource Recovery Corporation (SARRC) collected approximately 15.9 million litres of used oil, 1.68 million used oil filters and 193,425 kilograms of plastic oil containers.

◊ The Branch participated in the Canadian Environmental Protection Act (CEPA) toxic substance assessment and review. This is an ongoing activity conducted in order to serve the interests of environmental protection and Saskatchewan based stakeholders. Ultimately the review will result in maintaining a high level of environmental protection when dealing with toxic substances.

The Scrap Tire Management Program, managed and operated by the Saskatchewan Scrap Tire Corporation (SSTC), collected the equivalent of 1.3 million passenger tires - over 11.8 million kilograms of rubber. The SSTC collected approximately $3.6 million in Tire Recycling fees.

◊ The Branch participated on various working groups under the Canadian Council of Ministers of Environment (CCME) (i.e., Non- Hazardous solid waste committee; CCME import/export of solid waste stakeholder working group; Cleaner Vehicles and Fuels Working Group) Upstream Petroleum Industry Policy.

◊ The department was active in working with Energy and Mines(SEM) to clarify regulatory roles which saw SEM bringing forward new legislation to improve waste management.

OTHER BRANCH ACTIVITIES

- The Branch compiled 2000-2001 Environmental Protection Branch (EPB) portion of the Corporate Annual Report. The EPB Annual Report is published to compliment the SE annual report.

- Ensured consistency of Corporate and Branch planning objectives and activities. The Branch referenced the corporate plan when developing EPB's work plan, and influenced the corporate strategic plan.

- As part of the Corporate Strategic Plan, the Branch conducted Internal/Eco-Region consultation and development of performance measures and Key Actions for Clean Air, Land, and Water related activities.

- The Branch conducted a strategic review of EPB's legislation including a cursory review of regulations relating to principles and gaps, and prepared a recommended action plan for changes including a framework document and Cabinet Decision Item. The review included drinking water, ozone-depleting substance control, contaminated site liability, administrative penalties, etc.

During the 2001/02 fiscal year Data Management Unit responded to 42 formal inquiries for data/ information from government agencies, consultants and the public.

- SE handles Environmental File Searches, which consist of locating information for land acquisition, regarding storage of hazardous substances and spills for clients, consultants and the public.

- The Branch is currently reviewing the background information and the current state of the Branch's data release policy.

- Cumulative Effects Monitoring data for 2001 were successfully updated into the corporate database.

- A coordinated effort to document and update the existing Environmental Protection policies and guidelines was performed this fiscal year to ensure that policies are current for conversion to electronic format. Branding criteria was developed for all future publications within the Branch as well as a complete redesign of the Branch's portion of the departmental web page.

- The Branch coordinated the modeling of acid emissions from Alberta with Environment Canada and Alberta oil companies.

- Biomedical Waste: Participated in the interdepartmental and stakeholder committee dealing with the disposal of biomedical waste.

- CCME – Import/Export of Non Hazardous Waste: Represented Saskatchewan on the Advisory Committee related to the tracking of the import and export of non hazardous waste that is destined for final disposal.

- Canada Wide Standards (CWS)

    - Particulate matter(PM) and Ozone: Provincial implementation plans have been developed to deliver the CWS. Monitoring results have been assessed over the past few years to determine the type of implementation actions required. Based on the results, it is planned that Saskatchewan will implement the "clean areas clean" policy that formed part of the Canada Wide Standard.

    - Benzene: Phase two of the standard was endorsed by CCME in September 2001. The standard will require further reductions in point source benzene emissions over the next few years. Saskatchewan will see further reductions occur in the natural gas production areas due to improvements to the best management practices of the industry lead working group for natural gas producers.

    - Dioxins and Furans from Waste Incinerators and Coastal Pulp and Paper Boilers Burning Salt Laden Wood was signed May 2001 and sets out numerical targets and timeframes for reducing dioxin and furan emissions from new and existing municipal, medical, hazardous and sewage sludge waste incineration. There are currently no dedicated municipal solid waste incinerators, hazardous waste incinerators, or sewage sludge incinerators located in Saskatchewan. Some medical waste incinerators in Saskatchewan burn material that could result in them being classed as municipal waste incinerators under this CWS. Saskatchewan's overall approach will be to incorporate the CWS into the conditions of permits to operate issued pursuant to Saskatchewan's Clean Air Act and Clean Air Regulations.

    - Total Petroleum Hydrocarbons (PHC) in Soils, a remediation standard, was signed May 2001 and provides a consistent approach to managing PHC-contaminated sites across the country. PHC contamination, if left unaddressed, may impair the quality and uses of both land and water. Presently, across Saskatchewan, owners are required to remediate both

soil and water to those levels specified in the Risk Based Corrective Actions at Petroleum Contaminated Sites (RBCA), developed in 1995 at a time prior to more sophisticated modeling of ecosystem impacts. Saskatchewan revised the RBCA to reflect and adopt the CWS for PHC. The Standard does not specify timelines to be followed but specifies consistent methods and outcomes for assessment and management of PHC contaminated sites. A range of numerical targets is presented in detail within the Standard. Saskatchewan's overall approach is to manage and regulate the storage of PHC with the Hazardous Substances and Waste Dangerous Goods Regulations.

- PM and Ozone implementation plan was prepared in 2001 and commits the province to continuous monitoring and reporting in our Census Metropolitan Areas; Regina and Saskatoon. Presently, monitoring indicates the objective for ozone has not been exceeded and we are in the three year developmental stage for PM monitoring. Preliminary continuous data indicates the province will be below the PM Standard in Regina (no data exists for Saskatoon). We will analyze the data to determine the adherence to the ambient air quality standard and take action if trends indicate the standard may be exceeded in future years.

◊ CEPA Toxic Substances:

- Ammonia, found in wastewater discharges, has been declared toxic under the federal environment regulations review process. Saskatchewan is working with the federal government and other provincial jurisdictions to develop an action plan to reduce the effect of ammonia discharged into the environment. Public consultations were held to inform stakeholders of the proposed types of actions.

- EPB participated in federal/provincial processes specifically contributing views on CEPA assessment of Road Salts and Municipal Waste Water Effluents, Guidelines for Emissions from Thermal Electric Power Plants, nutrient assessment, the precautionary principle and other similar undertakings as a means to protect the environment while reducing the economic impact of such activities.

- Ethylene Oxide, Ethylene Glycol: A draft report was completed for ethylene glycol. With respect to human health, owing to the considerable limitations of the available data on both exposure and effects of ethylene glycol, a definitive conclusion of "toxic" or not "toxic" could not be reached. The five year timeframe mandated within the CEPA 1999 for assessment of Priority Substances was suspended for five years to collect necessary data. Ethylene oxide was found to be a

CEPA toxic late in the fiscal year. Management options to reduce exposure at point sources will be pursued next fiscal year.

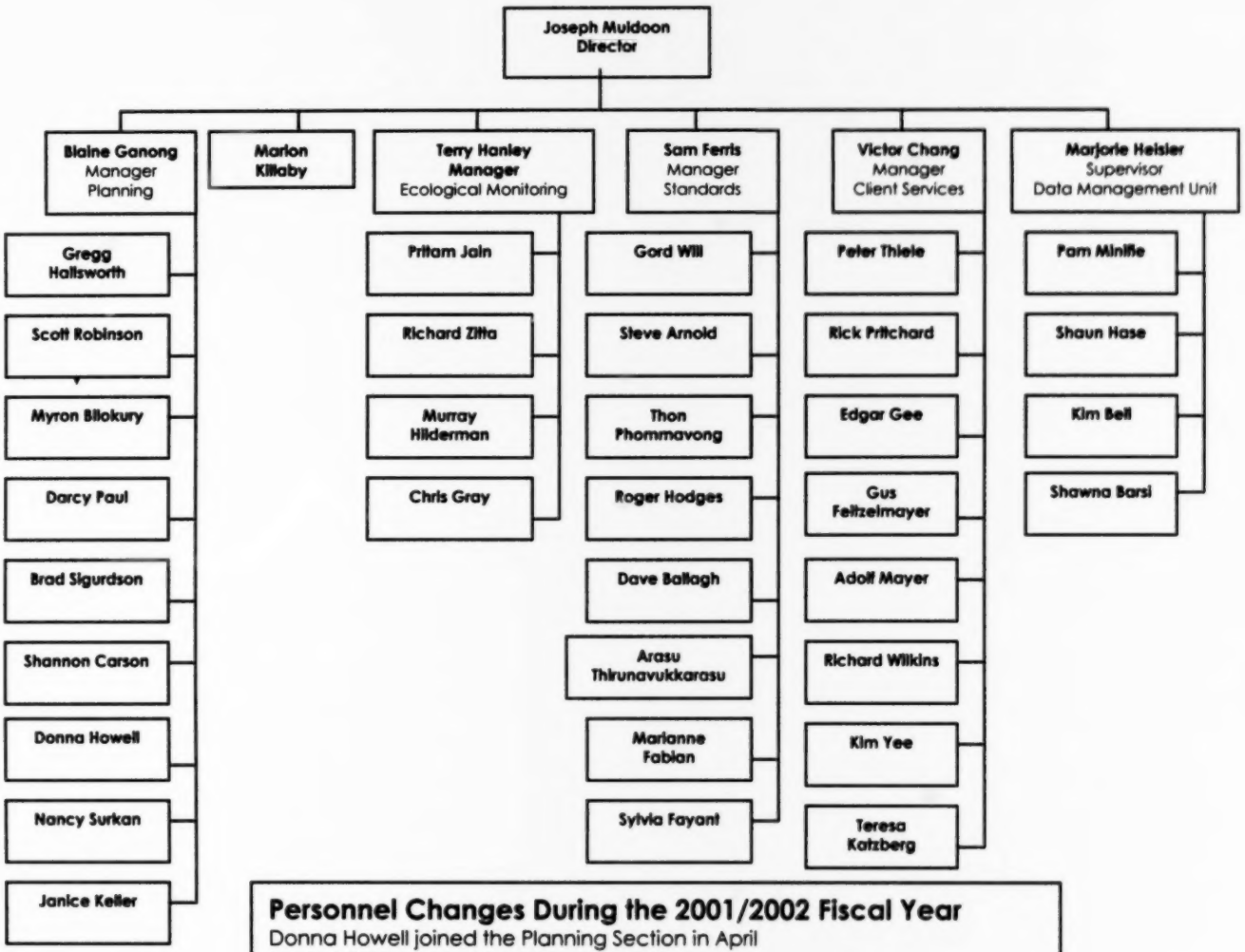
◊ SIFC Advisory Committee: The Branch represents SE, at the request of the Department of Health, on the committee that has worked towards preparing for a program certification review in 2002 by the Canadian Association of Public Health Inspectors. With program certification, graduates will be eligible for certification in any province. Work towards increasing enrolment continues with advertising of the program across Canada and North America.

◊ SARS system: The Branch continues to update its filing system to correspond with the Saskatchewan Administrative Records Systems (SARS) and developed a corresponding internal Operational Records System (ORS). The Administrative side of the new filing system is complete. The ORS side of the filing system is basically complete and continues to expand and change to reflect the Branch's changing priorities. The Branch continues to work on identifying and transferring inactive files to storage.

◊ SE Web Site: The Branch continued to increase the number of publications available on the Internet for great access to stakeholders and the public. This fiscal year there was a number of publications added to the electronic supply and the web site was reconfigured to be more user friendly. The electronic media allows the Branch to provide documents in a quick response time.

ORGANIZATION CHART

SASKATCHEWAN ENVIRONMENT
PROGRAMS DIVISION
ENVIRONMENTAL PROTECTION BRANCH



Personnel Changes During the 2001/2002 Fiscal Year

Donna Howell joined the Planning Section in April
Marlon Killaby joined the Branch in April
Stan Perentes left the Data Management Unit in June
Sylvia Fayant joined the Administrative staff in July
Kim Bell joined the Data Management Unit in July
Shannon Carson joined the Planning Section in August
Dave Ballagh moved to the Standards Section in August
Dennis Perras left the Planning Section in September
Terry Hanley became the Manager of Ecological Monitoring in September
Shawna Barsi joined the Data Management Unit in October
Arasu Thirunavukkarasu joined the Standards Section in December
Brad Sigurdson joined the Planning Section in January

ENVIRONMENTAL PROTECTION PROGRAMS

The Branch administers the following province-wide programs:

- ◊ Air Quality Program
- ◊ Ambient Water Quality
- ◊ Aquatic Nuisance Control Program
- ◊ Beverage Container Collection and Recycling Program
- ◊ Classification Program
- ◊ Climate Change
- ◊ Contaminated Site Management
- ◊ Cumulative Effects Monitoring
- ◊ Environmental File Search Program
- ◊ Ground Water Quality
- ◊ Hazardous Substances and Waste Dangerous Goods
- ◊ Hydrostatic Pipeline Testing
- ◊ Liquid Waste Haulers
- ◊ Mining (coal, clay, peat, potash, uranium, salt, sodium sulphate, gold and base metals)
- ◊ Municipal Drinking Water
- ◊ Ozone Depleting Substances
- ◊ PCB storage
- ◊ Pesticide Container Management
- ◊ Saskatchewan Pesticide Return Program
- ◊ Scrap Tire Recycling Program
- ◊ Solid Waste Management
- ◊ Transportation of Waste Dangerous Goods Program
- ◊ Used Oil Collection Program
- ◊ Voluntary operator certification and the water and wastewater treatment facility
- ◊ Waste Minimization and Recycling

COMMITTEES AND TASK GROUPS

EPB works with numerous individuals, organizations and industries at the local, regional, provincial, national and international level. The committees and task groups listed below are involved in environmental and resource management decisions and have a working relationship with the Branch.

- Aboriginal Affairs Network (SE)
- Agricultural Burning Working Group
- Biodiversity Action Plan
- CCME
  - Ad Hoc Toxics Group
  - Cleaner Vehicles and Fuels Task Group
  - CWS - Sub-agreement
  - CWS - PM & Ozone
  - CWS - Mercury
  - CWS - Dioxins & Furans
  - CWS - Benzene
  - CWS - Petroleum Hydrocarbons
  - Economic Integration Task Group
  - Environmental Assessment. Sub-agreement
  - Environmental Emergencies Sub-agreement
  - Environmental Inspection and Enforcement Sub-agreement
  - Environmental Monitoring and Reporting Sub-agreement
  - Environmental Planning and Protection Committee
  - Hazardous Waste Task Group
  - NOX/VOCS Management Plan
  - Packaging Task Group
  - Pollution Prevention Network
  - Research and Development Sub-agreement
  - Soil Quality Guideline Task Group
  - Water Quality Guideline Task Group
  - National Air Issues Coordination Committee – Air (NAICC-A)
    - Acidifying Emissions Task Group
    - Benzene Working Group
    - F-P Working Group on Controls Harmonization (ODS)
    - HAPS Task Group
    - NEIPTG
      - Public Education Task Group
      - Science Network
      - Smog Task Group
      - Socio-Economic Analysis Task Group
      - Transportation Working Group

- NAICC-Climate Change (CC)

CEOH Drinking Water Subcommittee
CEPA- FPAC
- Strategic Options Process
- Toxic Substances
- Working Group on Air Quality Objectives and Guidelines

City of Regina Drinking Water Advisory Task Force
City of Saskatoon Boil Water Advisory Task Force
Climate Change
- Government Committee
- SE Core Group
- Stakeholder Committee

Data Integration Working Group (SWC)
Data Working Group (Alberta Environment./Federal.)
Disinfection Byproducts Task Group - Water Quality Issues Subgroup (Health Canada)
Ecol. Ind. Working Group for Soils/Water
Ecosystem Management Guidelines Group
Ecosystem Monitoring Alliance Group
Environment Canada/SE Accord
Environmental Effects Monitoring - Metal Mining
Environmental Effects Monitoring - Pulp and Paper
ESQUADAT Steering Committee
Executive Secretaries Forum
Fish Culture Project - Lake Diefenbaker
F-P-T Committee on Pest Management & Pesticides
Glycol Dehydrator Working Group
Information Management Steering Committee
Integrated Policy Working Group
McKenzie R. Basin Trans-boundary Water
National Soil and Water Conservation Program
OECD Task Force on Endocrine Disruptors
Organizational Development Working Group
Paper Product Stewardship Committee
Partners for Saskatchewan River Basin
Partnership with Saskatchewan Agriculture and Food
Pesticide Container Management Association
Prairie Provinces Water Board
- Committee on Water Quality
- Steering Committee
- Task Force on Data Management Systems

Provincial Contaminants in Fish Committee
Rail Line Abandonment Committee
Regina, Yorkton and Southeast Aquifers Technical Committee
Riparian Zone Management Committee

Saskatchewan's Evaluation of the Oil Sands Working Group
Saskatchewan – Manitoba Accord
SARCAN
SARRC (Used Oil Collection)
Saskatchewan Evaluation of Oil Sands Working Group
Saskatchewan/Manitoba Accord
Saskatchewan River Issues Committee
Souris River Bilateral Water Quality Monitoring Task Group
SPIGEC
Saskatchewan Scrap Tire Corporation
SWRC
SWWA Executive
Union Management Advisory Committee
Uranium Core Group
Water Issues Group
West Nile Virus Technical Sub-committee

PRIMARY PARTNERS AND STAKEHOLDERS

The following is a list of the Branch's major stakeholders. This is not a complete listing, but it provides an indication of groups that the Branch has frequent on-going contact.

- Canadian Association of Petroleum Producers (CAPP)
- Canadian Bankers Association
- Canadian Federation of Independent Business (CFIB)
- Canadian Petroleum Products Institute (CPPI)
- Crop Protection Institute of Canada
- Environment Canada
- Federated Cooperatives Limited
- Husky Oil
- IPSCO
- Interprovincial Pipeline
- IMC - Kalium
- Saskatchewan Action Foundation for the Environment
- Saskatchewan Association of Automotive Repairers
- Saskatchewan Association of Rehabilitation Centres (SARC)
- Saskatchewan Association of Rural Municipalities (SARM)
- Saskatchewan Eco-Network (SEN)
- SaskEnergy Incorporated
- Saskatchewan Environment and Industry Managers Association (SEIMA)
- Saskatchewan Environmental Society (SES)
- Saskatchewan Mining Association
- Saskatchewan Potash Producers Association
- SaskPower Corporation
- Saskatchewan Research Council (SRC)
- Saskatchewan Urban Municipalities Association (SUMA)
- Saskatchewan Waste Reduction Council (SWRC)
- Saskatchewan Water and Wastewater Association (SWWA)
- SaskWater Corporation
- Saskatchewan Weekly Newspaper Association (SWNA)
- Waste Advisory Council of Saskatchewan (WACS)

ACTS AND REGULATIONS

(Legislative Framework used by Environmental Protection Branch)

1. **Environmental Management and Protection Act**
   Water Pollution Control and Waterworks Regulations
   Municipal Refuse Management Regulations
   Environmental Spill Control Regulations
   Hazardous Substances and Waste Dangerous Goods Regulations
   Used Oil Collection Regulations
   PCB Waste Storage Regulations
   Mineral Industry Environmental Protection Regulations
   The Scrap Tire Management Regulations

2. **Clean Air Act**
   Clean Air Regulations
   Potash Refining Air Emissions Regulations

3. **Litter Control Act**
   Litter Control Designation Regulations
   Litter Control Regulations and Notice

4. **Ozone Depleting Substances Control Act**
   Ozone Depleting Substances Control Regulations